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ABSTRACT

This curriculum guide was developed to help teachers from pre-school through secondary grade levels provide an interdisciplinary approach to teaching nutrition. This guide begins with eleven instructional units, varying from two to twenty pages in length, on basic nutrition and other selected topics. Each unit includes some or all of the following: rationale, topic, and behavioral objectives correlated with suggested student learning activities. The eleven units are as follows: (1) nutrition and the pre-schooler, (2) nutrition in the elementary grades (includes mathematics, social studies, language arts, and science and health), (3) mini nutrition unit for middle schools, (4) nutrition and social studies-secondary level, (5) nutrition and physical fitness, (6) nutrition and home economics, (7) food additives, (8) fad diets, (9) nutrition labeling, (10) nutrition and the single adult, and (11) snack food sense. Then follow thirteen one-to-two-page case studies of typical nutritional problems encountered by students. Each case study consists of a brief description of the case situation followed by six to eleven questions regarding the case. A brief discussion of student evaluation and a list of available resources conclude this guide. (EM)

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NUTRITION EDUCATION:

AN INTERDISCIPLINARY APPROACH

REVISED EDITION

DEVELOPED THROUGH

AN INSERVICE PROGRAM

of the

NUTRITION EDUCATION DEVELOPMENT PROJECT

AN ESEA TITLE IV C PROJECT

Administered by:

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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INTRODUCTION

This curriculum guide was developed through the efforts of teachers participating in an inservice program sponsored by the Nutrition Education Development Project. This ESEA Title IV C project, administered by Luzerne Intermediate Unit 18, aids local school districts in developing a supplementary, interdisciplinary approach to nutrition.

The first phase of this Project consisted of two inservice courses in Basic Nutrition Theory and Innovative Teaching Strategies in Nutrition Education. This guide was developed as a result of these inservices. Teachers from a variety of disciplines and grade levels participated so that nutrition education might become an interdisciplinary and sequential component of the curriculum. At the conclusion of the inservice, implementation of the curriculum begins in the classroom with the assistance of consultative services of the Project staff.

This curriculum guide is not meant to cover the total scope of nutrition. It represents the work of the second year of the Project and will be expanded upon in the future. In most disciplines, a basic unit in nutrition education is offered. However there are also more detailed units on selected topics.

At the end of the guide is a list of suggested resources. Again this is not meant to be an all-inclusive list. Rather it represents a list of major resources found to be particularly helpful. Many of the resources would also be useful in more than one discipline. A more complete collection of nutrition education materials are housed in the Nutrition Learning Resource Center established through this Project and located at the Library Media Examination Center of Luzerne Intermediate Unit 18. A bibliographic listing of all materials housed in the Resource Center is available free of charge upon request.

Each unit within this guide is based on three important principles. First each unit offers a variety of activities to directly involve students in dealing with specific nutritional concerns that they are likely to encounter in daily living. Secondly there is a great emphasis on encouraging students to apply basic principles of nutrition in the decision-making process of how they choose to eat now and in the future. Finally it is recognized that nutrition is a rapidly expanding body of knowledge and at the same time it is difficult to predict precisely what new nutritional problems might confront students in the future. Therefore students are encouraged to view nutrition as an exciting discipline with direct application to every-day living. Many opportunities are provided for students to search out nutrition information on their own so they will become familiar

with the process and be better able to locate reliable sources of information in the future.

In order to provide additional learning experiences to students to achieve the above goals, a compilation of case studies has been added to the curriculum guide this year. Each case study represents a typical nutritional problem encountered by students. Teachers will find many uses for these activities. Great flexibility is possible. Teachers may feel free to duplicate these case studies as necessary.

NUTRITION AND THE PRE-SCHOOLER

by

Mary Lee Burke, Dallas School District

Robin Rogers, Lake Lehman School District

RATIONALE

In recent years, there has been much discussion about the role of nutrition and its effects on the mental and physical condition of the child. There have been many studies performed and much evidence derived from them to substantiate the adage that the food we eat is the person we become.

The current practice in many nursery schools today is to limit the teaching of nutrition to the serving of snacks. We feel that proper nutrition, being of such importance to the future development of the child, should take on a more prominent role. It must be geared toward him in such a way as to insure a positive and constructive attitude toward the foods that will provide him with a sound mind and body.

We will endeavor to initiate this at a level which we feel a child of this age can understand. He will be encouraged to become enthusiastic about achieving this goal for himself and his classmates.

This unit has been designed to be incorporated into the nursery school segment of the Child Development course, which many schools are now initiating.

TOPIC: Pre-School Nutrition

OBJECTIVES	SUGGESTED ACTIVITIES
1. Children will become familiar with the Basic Four Food Groups and their importance in the diet.	1a. Introduction to the Basic Four Food Groups using pictures or food models.
	1b. Show the film "Nutrient Express" and discuss with children. Emphasize how the food we eat is necessary for many body functions.
	1c. Each day, choose one group for an in-depth study, stressing the nutrients found and the role they play in developing the body.
	1d. Have small samples of various foods from the group being discussed and allow the children to taste them. Encourage comments. Explain and illustrate that alternate foods can be substituted if a particular food is disliked or not tolerated.
	1e. Allow children to prepare a snack that is relevent to their lesson. Example - Jackstraw Salad when fruits and vegetables are being studied.
	1f. Play games such as "What's Your Group?" "Basic Four Toss" and "Nutrition Fishing"
	1g. Stress the importance of including foods from each group in their diets each day.
2. Children will be encouraged to eat a balanced breakfast every day.	2a. Discuss with the children the importance of a good breakfast in the morning to start the day.
	2b. Discuss with the children how they feel when they've had breakfast versus how they feel when they haven't eaten (tired, nervous, lack of interest) Show pictures to emphasize this.

TOPIC: Pre-School Nutrition (continued)

OBJECTIVES	SUGGESTED ACTIVITIES
	2c. Have children describe what they ate for breakfast one day and describe their reaction to it.
	2d. Show film "Break the Fast" and discuss.
	2e. Have children cut out pictures of various examples of balanced breakfasts and mount on bulletin board. Stress the ways you can incorporate wholesome substitutes into the early morning meal.
3. Children will become more aware of the undesirability of many convenience snacks.	3a. Give a presentation on wholesome snacks. Stress how snacks can make a valuable contribution to the overall diet.
	3b. Show filmstrip "The Snacking Mouse" and discuss.
	3c. Have children brainstorm to develop a list of wholesome snacks.
	3d. Have children participate in preparing a wholesome snack.
	3e. Prepare a double bulletin board. One side should use bright, attractive colors and depict snacks which make a significant nutritional contribution to the diet. The opposite side can be mounted on dark, dull colors with illustrations of snacks composed mainly of "empty calories" with little nutritional value.
4. Parents will be made aware of the goals and content of the nutrition unit.	4a. A seminar will be held at the onset to inform parents of the goals of the classroom activities.
	4b. Pamphlets will be send home regarding basic principles of good nutrition.
	4c. Mimeographed sheets relevent to the lesson of the day will be sent home with the children, e.g. recipes used in class, nutritional data, etc.

NUTRITION IN THE ELEMENTARY GRADES

by

Georgeann Adams, Lake Lehman School District

Janice Karpinski, Northwest Area School District

George Snyder Jr., Northwest Area School District

Mary Valenia, Northwest Area School District

TOPIC: Nutrition and Mathematics

OBJECTIVES	SUGGESTED ACTIVITIES
1. Students will be able to construct a height and weight chart.	1a. Students will measure their height and weight and record the results. This can be repeated periodically and a chart developed illustrating their growth.
2. Using various types of graphs, students will compare growth rates between experimental animals.	2a. If animal nutrition experiments are being conducted in science class, students can graph the results over a period of time. Using the graphs, conclusions can be drawn regarding the experiments.
3. Students will develop an understanding of the varying costs of food.	3a. Use a supermarket learning center with play money and simulate purchasing food. Set specific cost limits and have children purchase food for a particular purpose, e.g. lunch, snacks, etc. Evaluate nutritional value of the purchases.
4 Students will become familiar with various units of measurement used in cooking.	4a. Demonstrate the various measuring devices used in food preparation. Emphasize equivalents of various units. This can also be done with metric measuring devices. 4b. Allow children time to develop an understanding of equivalent units by providing an opportunity to experiment with various measuring devices and comparing them.

TOPIC: Nutrition and Social Studies

OBJECTIVES	SUGGESTED ACTIVITIES
1. Students will identify dietary customs of various societies.	1a. Use magazines and newspaper pictures of food from various areas to make any of the following: 1. Food scrapbooks 2. Mobiles 3. Collages 4. Charts 1b. Introduce foods from around the world such as mangos, tortillas, pomegrantes, etc. Discuss where they are from and how they are served. Allow the children to sample the foods. 1c. Construct a large globe and place pictures of major food sources over their native countries. 1d. Invite people who have visited foreign countries to come to class and discuss the food customs of that country. 1e. Encourage children to share food experiences and customs from their own backgrounds. Invite parents or grandparents to class to demonstrate and discuss certain ethnic food customs which they retain. 1f. Have students sample various ethnic foods common to their area.
2. Students will be able to explain the factors which cause a group of people to follow specific dietary customs.	2a. Present a panel discussion of the various factors which influence the development of food customs, e.g. available food supply, religion, methods of food production and distribution, cost, available natural resources, etc.

TOPIC: Nutrition and Language Arts

OBJECTIVES	SUGGESTED ACTIVITIES
1. Students will identify and evaluate advertising propaganda.	1a. Have children collect and discuss ads for food from magazines. Emphasize: 1. What is the particular appeal or strong selling point for this product? 2. How much factual information is offered or are the claims basically an emotional appeal? 3. Are the claims justified? 1b. If videotype equipment is available, tape a variety of food commercials geared to children. Analyze as above. 1c. If videotape equipment is not available, children can act out their favorite food commercials and then evaluate. 1d. Students can play a game similar to T.V. game show "To Tell the Truth" - using claims made for various food products.
2. Students will engage in a variety of writing experiences related to nutrition.	2a. Have students write their own advertising slogans for a product or develop their own advertising campaign for an imaginary product. 2b. Children can write an original story concerning food customs in a particular culture they have studied in social studies. Use drawings or pictures to illustrate. If desired, these stories can also be done in drama form and then performed for the class. 2c. Students can write summary lab reports for animal experiments done in science class

TOPIC: Nutrition in Science and Health

OBJECTIVES	SUGGESTED ACTIVITIES
1. Students will become familiar with a variety of foods.	1a. Children can make food shapes from clay or play dough. 1b. Provide children with an opportunity to catagorize foods into similar groups such as nuts, seeds, berries, beans. Discuss how such foods are grown. 1c. Have children observe a variety of foods using their senses. 1. Smell various foods and describe the experience. 2. Children can taste salty, bitter, sour, and sweet foods. 3. Children can attempt to identify foods by taste and smell with their eyes closed. 4. Compare foods which are similar in appearance and may be confusing to young children such as lettuce and cabbage, tomatoes and apples. 5. Compare sugar and salt by taste and appearance. 6. Use word games to identify foods, such as "What Am I?" 7. Have taste testing panels in class. Try to introduce new foods to children.
2. Students will identify the six essential nutrients and their functions in the body.	2a. Students can assume the role of a particular nutrient and act out skits illustrating its functions. 2b. Develop a collage for each nutrient illustrating foods that the nutrient is found in. 2c. As each body system is studied in health or science, discuss the specific role of proper nutrition to that system.
3. Students will list the Basic Four Food Groups and the required daily number of servings from each group.	3a. Use posters to illustrate the Basic Four Food Groups and the required number of servings. 3b. Discuss why nutritional requirements vary at different stages of

TOPIC: Nutrition in Science and Health (continued)

OBJECTIVES	SUGGESTED ACTIVITIES
	life and under varying conditions, such as growth, illness, stress.
	3c. Develop a collection of books and pamphlets dealing with the Basic Four Food Groups.
	3d. Using pictures from magazines, prepare collages showing the foods in each group.
	3e. If a particular food within a group is disliked, e.g. milk, discuss alternative sources.
	3f. Coloring workbooks are available on the Basic Four Food Groups. Have the children complete these worksheets.
4. Students will be able to associate the major nutrients contributed by each of the Four Food Groups.	4a. Discuss the particular nutrients contained in each food group.
	4b. Play "Poppin' Fresh Card Game"
	4c. After the functions of the nutrients are mastered, have children brainstorm and speculate on what might happen if these nutrients were deficient. Use resources to verify their conclusions.
5. Using the Basic Four Food Groups, students will evaluate the nutritional adequacy of various diets.	5a. Have students record their food intake for two days and analyze the nutritional adequacy using the Basic Four Food Groups. Suggest ways the diets may be improved.
	5b. Clip sample menus from magazines. Analyze them as above.
	5c. Play "Menu Rummy."
	5d. Students can plan well-balanced menus for a day.

TOPIC: Nutrition in Science and Health (continued)

OBJECTIVES	SUGGESTED ACTIVITIES
	5e. Have students develop a list of Do's and Don't's for Snacking.
	5f. Discuss how the careful selection of snacks can make a valuable contribution to the diet.
	5g. Discuss the possible consequences of an overconsumption of empty calories and junk foods, especially sugar.
	5h. Conduct experiments suggested in "Breaking Up Milk," by the National Dairy Council.
6. Students will identify the effects of a deficiency or an excess of a particular nutrient by conducting animal experiments.	6a. Conduct animal experiences using selected diets to illustrate nutritional principles. Keep a record of results and analyze.

MINI NUTRITION UNIT FOR MIDDLE SCHOOLS

by

Magdalene B. Fronczkiewicz, Tunkhannock Area School District

TOPIC: Mini Unit for Middle Schools

OBJECTIVES	SUGGESTED ACTIVITIES
1. Students will identify the many factors which influence a person's nutritional status.	1a. Students will present a panel discussion on "Why We Eat" - physical needs, emotional, ethnic, religious considerations, and advertising.
	1b. Students can design cartoon-like posters illustrating points raised in above discussion.
2. Students will identify the Basic Four Food Groups and the required number of servings required from each group.	2a. Construct four mobiles - one for each group.
	2b. Game - Divide students into two groups. One member from first team names a specific food. An opposing team member must identify the correct group to which it belongs. An appropriate scoring system may be devised.
	2c. Construct a collage bulletin board divided into four sections - one for each group. Place pictures of appropriate foods into each section.
3. Students will evaluate their own daily eating patterns using the Basic Four Food Groups.	3a. Write down the student's food intake for 2 or 3 days. Prepare a chart and place each food in the appropriate food group. Total the number of servings in each group. If the number of required servings in any group is deficient, compile a list of foods which would supply the missing nutrients.
4. Students will identify the relationship between the Basic Four Food Groups and the major nutrients which each group supplies.	4a. Prepare a chart illustrating the major nutrients supplied by each food group.
	4b. If a student dislikes a major food from a particular group (e.g. milk) prepare a list of alternative food sources which can provide the same nutrients. If cooking facilities are available, prepare selected foods from that list.
	4c. Use Comparison Cards from the National Dairy Council to illustrate that every food supplies a variety of nutrients.

TOPIC: Mini Unit for Middle Schools (continued)

OBJECTIVES	SUGGESTED ACTIVITIES
5. Students will develop an understanding of the importance of breakfast.	5a. Break down the compound word and discuss the meaning - "break fast" 5b Compare how a person feels when they do eat breakfast as opposed to when they don't. 5c. Using a reference source, draw up a list of physiological reasons why breakfast is important. 5d. Discuss reasons why people skip breakfast. Suggest solutions to any problems which are raised. 5e. Present a panel on breakfast foods in other countries to illustrate that it is possible to meet nutritional needs without following the the traditional American breakfast pattern. 5f. Compile a variety of breakfast patterns which appeal to the students. 5g. If cooking facilities are available, prepare a few representative breakfast patterns chosen by the students.

NUTRITION AND SOCIAL STUDIES

SECONDARY LEVEL

by

Richard Gorgone, Lake Lehman School District

Raymond Sunday, Wilkes-Barre Area School District

TOPIC: World Hunger as a Social Problem

OBJECTIVES	SUGGESTED ACTIVITIES
1. Students will develop an understanding of the scope of hunger in the world.	1a. Using a map of the world, students can use different colors to represent the percentage of a country's population suffering from malnutrition. 1b. Develop a collage depicting people throughout the world suffering from malnutrition. 1c. Have students research the incidence of malnutrition in the U. S. and in their local community, if data is available. 1d. Using charts, compare the available food supply between developed and developing countries. 1e. Identify particular areas with specific nutritional problems based on food supply or social customs, e.g. "Goiter Belts, Protein-calorie malnutrition after weaning, etc.
2. Students will be able to identify the effects of malnutrition on a country's population.	2a. Discuss the effects of malnutrition on a nation's population. 1. Starvation and death 2. Physical effects of malnutrition 3. Higher infant mortality 4. Lowered productivity 5. Social unrest 6. Possible effects of early malnutrition on brain development 7. Cyclical nature of poverty 8. Lower life expectancy 2b. Have students select a country and become familiar with the common diet and resulting nutritional problems. Have students imagine themselves living with these problems and write a first-person narrative describing their feelings.

TOPIC: World Hunger as a Social Problem (continued)

OBJECTIVES	SUGGESTED ACTIVITIES
	2c. Have a speaker from a community agency outline effects of poor nutrition locally.
3. Students will identify the causes of widespread world hunger.	3a. Have students use brainstorming to identify the causes of malnutrition. 1. Unequal distribution of wealth and property and resulting poverty. 2. Overpopulation 3. Energy shortages 4. Climate and weather problems 5. Ineffective use of technology in farming 6. Under-utilization of available resources 7. Unemployment 8. Resistance and lack of knowledge concerning new agricultural techniques 9. Discrepency between the use of available resources between developed and developing nations 10. Lack of long-range planning 11. Poor soil conditions 12. Reliance on limited number of crops 13. Ineffective transportation and processing facilities for food supply 14. Lack of education
	3b. Have students select a particular cause of world hunger. Working in small groups, have students role-play the part of national leaders looking for solutions to that particular problem. After completing their work, have the class evaluate the feasibility of the solutions in view of current conditions in a particular country.
	3c. Students can select a particular developing country and determine the mean income. Have disucssions on how they would allocate such an income for necessities of life.

OBJECTIVES	SUGGESTED ACTIVITIES
	3d. Research and discuss the customs in various countries which aggravate the nutritional problems, e.g. religious taboos on particular foods; the development of protein deficiencies after weaning; males eating the food before females and children are allowed to share in a meal.
	3e. Debates on any of the following topics: Resolved: Americans must readjust their eating habits to allow for a better redistribution of food resources. Resolved: The basic cause of world hunger is overpopulation; therefore stringent measures must be undertaken by governments to control the population growth rate. Resolved: The developed nations of the world are morally bound to do more to alleviate the food crisis in developing nations.
	3f. Students can gather projections from various sources on the state of the world food supply in coming years.
4. Students will identify and explain possible solutions to the world food crisis.	4a. Discussion of "Green Revolution" 1. Definition of term 2. Promise of success - history of development 3. Relative successes and failures after implementation of program
	4b. Panel discussions on any of the following measures to alleviate the food crisis including a discussion of factors hindering their implementation: 1. Development of new food sources, e.g. FPC - fish protein concentrate; greater use of food from sea; various soybean products; insects; etc. 2. Better technology in agriculture 3. Redesigning particular aspects of economic system to allow for greater equalization of wealth

TOPIC: World Hunger as a Social Problem (continued)

OBJECTIVES	SUGGESTED ACTIVITIES
	4. Measures undertaken in various countries to limit population growth 5. Internationally managed system of food reserves 6. Improved marketing, transportation, and processing system for food supply
	4c. With the help of a resource speaker from a community agency, collect information on programs to help alleviate nutritional problems in the U.S. and in the local community, e.g. food stamp program, school lunch and school breakfast programs, WIC, etc.
	4d. Prepare a bulletin board by writing to various governmental agencies for information on nutrition programs for low-income families.
	4e. Discuss the role education plays in improving nutritional status of individuals. Even if the income is more than adequate and food supply is plentiful, poor choices on the part of the individual can result in nutritional problems.
	4f. Debate - Resolved: Hunger has existed since man's beginning; it will always exist; and it is futile to try drastic measures to alleviate it.

NUTRITION AND PHYSICAL FITNESS

by

Jacklyn Adams, Lake Lehman School District

Linda Adams, Lake Lehman School District

Marilyn Cigarski, Lake Lehman School District

Mary Lou Kaminski, Pittston Area School District

Dolores Kane, Hanover Area School District

Marianne Maciun, Hanover Area School District

Emma Matz, Lake Lehman School District

Judith Walsh, Hanover Area School District

TOPIC: Nutrition and Physical Fitness

OBJECTIVES	SUGGESTED ACTIVITIES
1. Students will define calories and how food supplies energy for activities.	1a. Discuss the meaning of "calorie" as a unit of measurement of heat energy.
	1b. Compare the car's use of gasoline for energy and the body's need for food. Use McDonald's Nutrition Action Pack.
2. Students will demonstrate an understanding of caloric expenditures for various activities and body functions.	2a. Obtain listings of energy expenditures for various body functions.
	2b. Obtain listings of energy expenditures for various activities (running, sitting, sleeping, etc.)
	2c. Prepare a list of factors which influence an individual's caloric needs (Over and above activity and basic body function, calorie needs are influenced by growth, state of health, etc.)
3. Students will calculate their individual caloric requirement.	3a. Using the charts obtained in the second activity, students can develop a realistic estimate of their own caloric requirements.
4. Students will become familiar with the caloric value of various foods.	4a. Construct mobiles of food high in energy value.
	4b. After keeping a record of their food intake for 2 or 3 days, students can calculate their average caloric intake.
	4c. Prepare posters which contrast the difference between foods high in "empty calories" and food of high caloric value which also provide substantial nutritive value.
	4d. Use the U.S. RDA Comparison Cards by National Dairy Council to compare the caloric value of various foods.
5. The student will identify the relationship between proper nutrition and optimum bone, teeth, and muscle development.	5a. Using models, identify the major parts of the skeletal and muscular systems and the teeth.

TOPIC: Nutrition and Physical Fitness (continued)

OBJECTIVES	SUGGESTED ACTIVITIES
	5b. Discuss the role of protein, calcium, and vitamin D in the development of bones and teeth.
	5c. Discuss the particularly high nutritional needs of an individual during periods of growth.
	5d. Use disclosing tablets to identify improper habits of oral hygiene.
	5e. Ask a dentist or dental hygienist to demonstrate the proper techniques of tooth brushing and flossing.
	5f. Obtain extracted teeth from a dentist. Soak them for a period of time in a highly concentrated sugar solution, such as carbonated soft drinks. Observe results and draw conclusions.
6. Students will evaluate popular diets suggested for athletes.	6a. Introduce the Basic Four Food Groups and discuss what nutrients are supplied by each group.
	6b. Prepare charts illustrating why each of the nutrients are important.
	6c. Students can undertake individual research projects on specific diets recommended for athletes, e.g. starvation weight-loss diets for wrestlers, high-protein diets, etc. Particular emphasis should be placed on the short and long term results of such diets. Have students present their findings to the class in a panel discussion.
	6d. Ask a nutritionist to address the class concerning the latest research on diets for athletes.
	6e. Develop a file of resource articles advocating different diets for athletes. Evaluate.

TOPIC: Nutrition and Physical Fitness (continued)

OBJECTIVES	SUGGESTED ACTIVITIES
7. Students will develop a diet a diet for themselves which satisfies their nutritional needs.	7a. Develop a diet for the individual student based on information gained from the resource file, nutritionist, individual research projects, and knowledge of the Basic Four Food Groups. 7b. Students who have different nutritional needs (such as participating in different sports) can compare and discuss their diets. 7c. Students can compare their present eating habits to the recommended diets which they have developed and make suggestions for improvement.
8. The student will compare and contrast the effects of good and poor nutritional practices by evaluating the effects on appearance.	8a. Students can collect pictures of people they admire. Select specific aspects of their appearance they might wish to emulate, e.g. physique, hair, skin, etc. Discuss the relationship of nutrition to those aspects of appearance. 8b. Discuss the importance of breakfast and how it affects an individual's energy level and performance.
9. Students will identify emotional factors which influence our eating habits.	9a. In small groups, discuss the psychological factors which influence our eating habits. 1. Need for love 2. Acceptance 3. Anxiety 4. Social customs 5. Depression 6. Habit 7. Traditional beliefs surrounding certain foods 9b. Role play situations which affect whether the eating situation is pleasant or unpleasant. 1. Table manners 2. Atmosphere while eating - relaxed, tense, etc.

TOPIC: Nutrition and Physical Fitness (continued)

OBJECTIVES	SUGGESTED ACTIVITIES
	9c. Discuss foods students refuse to eat. Talk about past associations with these foods. If possible, have blind-fold taste tests with foods not commonly accepted.

NUTRITION AND HOME ECONOMICS

by

Joan Alesczyk, Wilkes-Barre Area School District

Thelma Monaghan, Wilkes-Barre Area School District

TOPIC: The Six Essential Nutrients

OBJECTIVES	SUGGESTED ACTIVITIES
1. Students will define nutrition.	1a. Students can consider the various factors which determine the nutritional needs of people, e.g. physical activity, age, sex, state of health, etc. Dramatize these conditions with a series of skits in which characters demonstrate their own nutritional needs.
2. Students will list the six essential nutrients and the main functions of each nutrient.	2a. Discuss the six essential nutrients and their functions.
	2b. Play "Poppin' Fresh Card Game"
	2c. Write the essential nutrients across the top of the blackboard. Have students call off foods and place them in their appropriate column.
	2d. Develop posters for each nutrient, why they're needed, and the foods they're found in.
3. Students will define calories.	3a. Discuss calories as a measurement of heat energy.
4. Students will calculate the caloric value of various daily menus.	4a. Given various sample menus, students will complete worksheets calculating their caloric value.
	4b. Students can keep a record of their own food intake over a 2 or 3 day period and calculate their own caloric intake.
	4c. Develop charts for each nutrient illustrating low and high calorie foods that supply that nutrient.
5. Students will evaluate the adequacy of their food intake using the RDA's for their age and sex.	5a. Discuss the development and the use of the Recommended Daily Allowances (RDA's)

TOPIC: The Six Essential Nutrients (continued)

OBJECTIVES	SUGGESTED ACTIVITIES
	5b. Obtain charts showing the RDA's for various age levels and for both sexes. Distribute these charts to students. 5c. Students can keep a record of their food intake for a given period of time and calculate the percentage of the RDA's that they are consuming. 5d. Using the U.S. RDA Comparison Cards by the Natl. Dairy Council, compare various foods for their nutritional and caloric value.

TOPIC: Applying the Knowledge of Basic Nutrition to Meal Planning

OBJECTIVES	SUGGESTED ACTIVITIES
1. Students will define the Basic Four Food Groups and list the required number of servings needed from each group.	1a. Students will make a poster of the Basic Four Food Groups. 1b. Discussion of various food combinations to meet requirements of Basic Four Food Groups. 1c. Do a cost comparison of various possible food choices within one particular food group, e.g. whole milk and instant nonfat dry milk 1d. Do the same as Activity 1c but as a calorie comparison.
2. Students will be able to catagorize specific foods into their appropriate food group.	2a. Game - Basic Four Bowl - 2 teams Team A - Name a food Team B - Gives name of food group to which it belongs 2b. Collect labels from various processed foods and evaluate to which food group they belong.
3. Students will plan and serve a balanced meal using the Basic Four Food Groups as a guide.	3a. Filmstrip: Nutrition - What's In It for You - J.C. Penney 3b. Given the details of a specific family, plan one day's meals for that family using the Basic Four Food Groups as a guide. 3c. Prepare each of the above meals in class. 3d. Discuss how a person can meet the requirements of the Basic Four Food Groups if they eat in restaurants a great deal. 3e. Plan one day's menu in which low calorie foods are used to meet the requirements of the Basic Four Food Groups.

TOPIC: Applying the Knowledge of Basic Nutrition to Meal Planning (continued)

OBJECTIVES	SUGGESTED ACTIVITIES
	3f. Given a specific budget figure, plan one week's menus for a family of four using the Basic Four Food Groups to insure nutritional adequacy.
	3g. Bring in local newspaper and plan a menu using the specials at local markets.
4. Students will identify basic considerations in meal planning.	4a. Discussion of factors to consider in planning a meal, such as color, texture, taste, and smell
	4b. Discuss family food likes and dislikes and how they should be taken into consideration when planning meals.
	4c. Do a survey among classmates concerning food habits, e.g. whether or not they eat breakfast, particular foods they frequently eat or never eat, etc. Discuss results.
5. Given various diets, students will be able to analyze their nutritional adequacy.	5a. Obtain copies of various diets, such as Atkins, Stillman, Weight Watchers etc, Analyze their nutritional adequacy using the Basic Four Food Groups as a guide.
	5b. Students will keep a record of their own food intake for 3 days and analyze its adequacy using the Basic Four Food Groups.
	5c. Plan a week's menus for the following: 1. Overweight high school boy or girl 2. Underweight high school boy or girl
6. Students will plan and prepare a meal using convenience foods and compare their cost and nutritional value to foods made from scratch.	6a. Students will prepare a meal using convenience foods and do a follow-up cost and nutritional comparison.

OBJECTIVES	SUGGESTED ACTIVITIES
7. Students will plan meals using leftovers and low-cost foods for greater economy.	7a. Describe uses for leftover poultry, meat, fish, vegetables, and fruit. 7b. Clip casserole recipes and illustrations from magazines and newspapers and file for future use. 7c. Make a collage of low-cost substitutes for meat. 7d. Have students make a recipe by selecting foods from a major food group that would be appropriate in low-cost meals, given an outline such as 1 c. protein, 2 c. cooked starch, 2 c vegetables, a sauce to moisten, and a crunchy topping. Bake at 350.
8. Students will develop an awareness of the various sources of nutrition information within the community.	8a. Contact local government officials and food companies for pamphlets on nutrition and meal planning. 8b. Present a panel on various agencies dealing with nutrition in the local community and the services they offer. 8c. Students can develop a bulletin board displaying pamphlets, flyers, posters, etc. from a variety of government and community agencies. Materials not included in the display can be used to start a permanent resource file in the classroom. 8d. Using role-playing, students can simulate that they have a particular problem related to nutrition. Other students can assume the role of a counselor and suggest resources within the community where they might seek assistance.

FOOD ADDITIVES

by

Catherine Philbin, Pittston Area School District

RATIONALE

Because of the general public's confusion concerning food additives as a result of many conflicting opinions, we feel the need to stress the true picture concerning this subject. Food additives are chemicals and they are added to food for various reasons including preventing spoilage, enhancing flavor, adding extra nutritive value, improving color, and for preservation. The people who advocate the addition of chemicals for these reasons insist that it enhances and improves the appearance and overall quality of the food. The other school of thought is represented by the natural food advocates who claim that all additives are dangerous. We are attempting to impart the correct information concerning this question holding to the belief that neither of these extreme positions are correct. This unit is designed for the student with a background in Fundamental Nutrition, but it does include a review of basic nutrition principles. The student then progresses to the heart of the matter - food additives - for an in-depth study of the facts and fallacies surrounding this topic. The latter part of the unit helps the student to realize the importance of being an informed consumer. He will become acquainted with food labels and information, and he will be able to make rational judgments as to whether food is nutritious or otherwise.

TOPIC: Food Additives

OBJECTIVES	SUGGESTED ACTIVITIES
1. Students will understand the body's need for foods which provide adequate nutrition.	1a. The teacher will lecture on the six essential nutrients and their functions in the body. 1b. View film, "Food and Nutrition," by Encyclopedia Films, Inc. Conduct question and answer sessions and discussion. 1c. Students will play "Nutrition Bingo" and "Poppin' Swap Card Game." 1d. Groups of students will create posters illustrating themes of good nutrition. They will be displayed throughout the school. A committee of teachers and students will judge the posters and award prizes. 1e. Students will prepare a one-minute commercial for radio promoting one aspect of good nutrition. Class will select the best one which will be played on the public address system following announcements. 1f. Students will prepare a bulletin board on good nutrition. 1g. Discuss various nutritional deficiencies and their effects in animals and humans. 1h. Conduct animal nutrition experiments for 6 weeks. Record and analyze results. 1i. Students will be given examples of diets and will determine the lacking nutrients. 1j. Class will formulate a list of reasons why people do not eat an adequate diet.

TOPIC: Food Additives (continued)

OBJECTIVES	SUGGESTED ACTIVITIES
2. Students will become familiar with various food additives and their functions.	2a. Define preservatives, antioxidants, fertilizer, organic foods. Class will research why these substances are added to food and report their findings to the class. 2b. Small resource units will be set up in the classroom and will include film loops, texts, booklets, and articles on food additives. 2c. Divide students into groups. Each group will be given a topic to be researched, e.g. organic foods, health foods, chemical fertilizers, etc. Present results to the class. 2d. View and discuss film, "The Chemical Feast." 2e. Students will prepare a fact and fallacy questionnaire composed of common misconceptions regarding food additives. Students will conduct a survey in the school. Compile, analyze, and report results. 2f. Class will review text, Health and Food, by Birch, Green, and Plosbett. Emphasize section dealing with contamination, food additives, and pesticide residues. 2g. Conduct a poll to determine the number of students taking vitamin supplements. Show that a varied diet planned around the Basic Four Food Groups makes such supplements unnecessary. 2h. Discuss the loss of nutrients in food processing. 2i. Investigate the regulations of the USDA and FDA pertaining to enrichment and fortification programs.

TOPIC: Food Additives (continued)

OBJECTIVES	SUGGESTED ACTIVITIES
	2j. Discuss new legislation on food safety and the methodology for preventing food contamination.
	2k. Each student will compose a letter to their congressman inquiring as to what he is doing about food safety through legislation.
	2l. Class will receive a list of various foods. They will visit local supermarkets and health food stores to compare costs.
3. Students will be able to analyze a food product by the label contents.	3a. Discussion on what information is on a label.
	3b. Using the Grolier Modern Consumer Program, students can be made aware of the best food buys, ways to shop for food, the importance of the label, and the use of coupons in the food market industry.
	3c. Students can review the standards of identity for various foods.
	3d. Students will examine labels using a labeling chart. The label will be compared with a checklist to decide if it meets the requirements of the FDA.
	3e. Local nutritionist will speak to class on food additives.
	3f. Each student will bring two labels to class. Labels will be checked for contents. Unfamiliar terms will be defined. Compare food substitutes to natural products, e.g. orange juice and instant orange drink.
	3g. View film, "Read the Label - Set a Better Table." Follow with buzz session.

TOPIC: Food Additives (continued).

OBJECTIVES	SUGGESTED ACTIVITIES
	3h. Students will make up a shopping list for a family of four. They will visit the supermarket "purchasing" the list and checking all labels.

FAD DIETS

by

Maureen Scolere, Wilkes-Barre Area School District

RATIONALE

This unit was developed to enable students with a basic course in nutrition to evaluate fad diets. This is achieved through the sequential learning of nutrition as outlined below:

1. The first step to understanding nutrition in knowledge about our bodies and the digestive process.
2. Good nutrition is promoted by an understanding of nutrients.
3. Good eating habits are directly related to good health.
4. Good or poor nutrition and the resulting effects come about from adequate or inadequate food choices over a period of time.
5. Nutrition has a very important influence on growth and health from the prenatal period to death.
6. The need for good nutrition never ceases.
7. Dieting has become the great all-American pastime.
8. People dissatisfied with their figures are most vulnerable to fad diets that promise easy solutions to their problems.
9. A diet is a nutritionally sound way of eating that should be followed throughout life to promote optimum health.
10. It is necessary to promote good attitudes toward nutrition and eating early in life.

TOPIC: Fad Diets

OBJECTIVES	SUGGESTED ACTIVITIES
1. Students will develop an understanding of the digestive system.	1a. Use either models or transparencies to review the digestive system. 1. Parts of digestive system 2. Process of digestion 3. Role of enzymes in breaking down food 1b. Have students complete worksheets on the digestive system.
2. Students will review the six essential nutrients.	2a. List the six essential nutrients on the board. Ask students to recall their functions and food sources. 2b. Flip chart - How Food Affects You 2c. Use pamphlets to review nutrients. 2d. Divide the class into 4 groups and play: 1. Food Bingo 2. Nutrients Game 3. Nutrition Match-Up 4. 4-H Custom Pack Nutrient Cards 2e. Divide class into groups to create bulletin boards to illustrate Basic Four Food Groups and the required number of servings. Use bulletin boards to review this concept.
3. Students will develop an awareness of the many factors influencing their food choices.	3a. Divide class into groups and brainstorm to develop lists of factors affecting an individual's food choices. 3b. Develop survey forms to determine when, where, and why we eat. Have students complete these forms, e.g. 1. When I eat _____, I was feeling... 2. How do the people I'm with affect my food choices and the quantity of food I eat?

OBJECTIVES	SUGGESTED ACTIVITIES
	3. I am most likely to snack when... 4. Etc.
	3c. Have students begin a notebook recording their daily intake of food, along with the amounts they ate, time of eating, where they were, and their feelings at the time.
4. Students will identify the relationship between appearance and good nutrition.	4a. Use flash cards showing teenagers with postive and negative aspects of appearance. Ask students to comment.
	4b. Students can complete a private self-analysis of their appearance - noting what they're satisfied with and what they wish to change.
	4c. Using a question box, have each student write down one particular aspect of their appearance that they would like to change. Teacher can discuss each topic and its relation to nutrition.
	4d. On the self-analysis previously completed, students can develop a program to improve whatever areas of their appearance they wish.
	4e. Use booklets on skin care to develop an awareness of the principles of good hygiene, grooming, and nutrition.
	4f. Invite a hairdresser to speak on hair care. Teacher can follow through with a discussion on nutrients and the hair.
	4g. Discuss role of calcium, vitamin D, and fluoride to good dental health. Emphasize importance of avoiding excessive sugar intake. Ask students to note how people whose appearance they admire have healthy, white teeth.

OBJECTIVES	SUGGESTED ACTIVITIES
	4h. In notebooks, students can record their height and weight. Obtain copies of height and weight tables and compare. 4i. Invite physical education teacher to discuss the importance of balancing food intake and exercise to achieve and maintain desired weight. 4j. Use animal experiments to illustrate the effects of diet on 1. Weight 2. Appearance 3. Personality
5. Students will make an analysis of their own diets.	5a. By using a sample diet and an imaginary person, teacher can illustrate the important factors in overall diet planning. 1. Recommended daily allowances 2. Number of calories 3. Amount of activity 4. Age 5. Sex 5b. Students are provided with needed resources to complete an analysis of their own diets similar to example done by teacher. 5c. Refer back to any symptoms which developed during animal experiments of Activity 4j. Make necessary corrections in the animals' diets. Observe, record, and discuss results.
6. Student will identify problems associated with poor nutrition.	6a. Invite dietitian to discuss the role of food and the development of nutritional problems, e.g. deficiencies, coronary-artery disease, resistance to infection, energy levels, overweight, etc. Allow time for question and answer session.

TOPIC: Fad Diets (continued)

OBJECTIVES	SUGGESTED ACTIVITIES
	6b. View film, "Life Before Birth." Discuss role of good nutrition before and during pregnancy and its effects on the baby.
	6c. Discuss importance of good prenatal nutrition to optimum brain cell development.
7. Students will be able to recognize good and poor dietary practices.	7a. Using hypothetical people and sample diets, allow students to evaluate the adequacy of the diets using either the Basic Four Food Groups or the RDA's as the criterion reference.
	7b. Refer back to survey results obtained in Activity 3b. Have class compile list of psychological reasons why people eat more than they need.
	7c. Using students' recorded food intake, students can identify patterns they see developing in their food habits, danger signals, and suggestions for improvement.
8. Students will identify the the dangers in common fad diets.	8a. Define "fad diet."
	8b. Discuss the reasons why fad diets are popular. 1. High incidence of overweight 2. Emphasis in our society on being slim 3. Individuals looking for fast, easy solutions to the problem 4. Advertising and media promotion
	8c. Collect ads for weight-loss programs. Discuss how these ads appeal to particular needs of people, e.g. Beauty, security, sex appeal, desire for easy solutions, fast results, acceptance of others, etc.

TOPIC: Fad Diets (continued)

OBJECTIVES	SUGGESTED ACTIVITIES
	8d. Using reference sources, identify the facts regarding weight-loss. 1. There are no "magic" cures. 2. In order to reduce weight, energy output must exceed food intake. 3. Too rapid weight-loss can be dangerous and is often quickly regained. 4. Weight-loss diets must still be nutritionally balanced to maintain health and energy levels. 5. Weight-loss programs must be consistent with a person's lifestyle. 8e. Compare ads for weight-loss programs to the principles for sound weight reduction. 8f. Divide students into groups and distribute menus from a variety of fad diets, e.g. Atkins, Stillman, grapefruit, banana and egg diet, etc. Allow students to calculate whether or not these diets meet the RDA's. Report results to class. 8g. Invite doctor to speak to the class on the problems which can result from fad diets. 8h. Emphasize that successful weight-loss depends on a customized diet which considers a person's nutritional needs and lifestyle.

NUTRITION LABELING

by

Marie Hopkins, Wilkes-Barre Area School District

Rosemary Hudack, Northwest Area School District

Andrew Sorber, Northwest Area School District

TOPIC: Nutrition Labeling

OBJECTIVES	SUGGESTED ACTIVITIES
1. Students will identify the uses of the ingredient listing on food labels.	1a. Discuss the list of ingredients and emphasize that they are shown in order of weight in the product.
	1b. To emphasize how the list of ingredients can aid in consumer decision making, students can collect labels from various brands of the same product (e.g. beef stew). Compare how the order of the main ingredients varies according to the brand and relate that to the cost of the product.
	1c. Discuss how the list of ingredients can be an aid to people on special diets (e.g. sodium restricted, diabetic, various food allergies, etc.). If students know of individuals on such diets, they may be able to cite examples to the class.
2. Students will identify the components of nutritional labeling.	2a. Collect a variety of labels from various products. Emphasize that regardless of the product, the label follows the same format.
	2b. Information on serving size - Initiate a class exercise to compare the cost per serving of similar products.
	2c. Develop a class display illustrating commonly used measurements of serving sizes (e.g. ½ c. of vegetables, 1 oz. of cereal, etc.)
	2d. Discuss the meaning of calories, protein, carbohydrate, and fat. See activities in other sections of this guide if you wish to ellaborate on this.
	2e. Emphasize that if the product is commonly eaten differently than it is packaged (e.g. cereal with milk), two listings will be given.

TOPIC: Nutrition Labeling (continued)

OBJECTIVES	SUGGESTED ACTIVITIES
	2f. Two groups of students can research the differences between the R.D.A's and the U.S. R.D.A's used on food labels. Present their findings to the class.
	2g. Using U.S. R.D.A. Comparison Cards from the National Dairy Council, illustrate how foods vary widely in the amounts of the U.S. R.D.A.'s which they supply for individual nutrients. Emphasize that no one food supplies all the necessary nutrients in the required amounts.
	2h. Prepare a bulletin board which briefly describes the main functions of the nutrients appearing on food labels.
3. Students will gain experience in utilizing the nutrition information on food labels.	3a. Have students collect labels from a variety of foods. Using the amounts of the U.S. RDA's listed on the label, prepare a day's menu which meet a person's nutritive requirements by using various combinations of food.
	3b. Compare the cost and nutritional value of nationally advertised brand-name products vs. private store labels.
	3c. From the collection of labels gathered by the students, compile a list of unfamiliar terms used in the listing of ingredients. Using resource materials, locate definitions for these terms and the purposes they fulfill. Distribute copies to all class members.
	3d. Compare the nutritional value of foods which have similar uses (e.g. Orange juice and Tang, bacon and Sizzle Lean, Kool Aid and fruit juices, cheese and processed cheese spreads, processed breakfast foods - breakfast squares, frozen waffles, Pop Tarts, etc. - and traditional breakfast foods.

NUTRITION AND THE SINGLE ADULT

by

Diane Black, Wyoming Area School District

Kathryn Burke, Wyoming Area School District

Charlotte Filip, Hanover Area School District

RATIONALE

Many changes are evident in contemporary society. One particular change which may be observed with increasing frequency in the future is the single adult living alone. Many people are putting off marriage to a later age or opting for a single lifestyle throughout life. With longer life expectancies, many people, particularly women, find themselves living as single adults after the death of a spouse. Such adults often fall prey to a careless attitude toward preparing meals for themselves. As a result, their nutritional status may suffer.

To realistically prepare for these eventualities, this unit concentrates on nutrition as viewed from the perspective of the single adult who is not within the context of the family. It is designed for senior high school students who have had some background in nutrition. Basic principles are included as well as a detailed evaluation of individual nutritional requirements (this section could be incorporated into other units). Finally recipes are offered which are tasty, easily prepared, and appealing for the single adult.

TOPIC: Nutrition and the Single Adult

OBJECTIVES	SUGGESTED ACTIVITIES
1. Students will define nutrition.	1a. Students will discuss three states of nutrition: 1. Optimum - all nutrients are present in adequate amounts to promote health 2. Good - one or two essential nutrients are not present in adequate amounts to promote health 3. Poor - several essential nutrients are either missing or inadequate It should be emphasized that nutritional status can best be viewed as a continuum rather than an "either-or" type of evaluation.
	1b. Students can present a panel on the various factors which influence a person's nutritional status - culture, religion, socioeconomic status, physical, and emotional background.
2. Students will identify the six essential nutrients and the major functions and food sources of each nutrient.	2a. Assign a team of students to each nutrient to develop a visual presentation on the nutrient, its functions, its relationship to other nutrients, and several good food sources and/or recipes for that nutrient.
	2b. Show the following films and discuss: "Read the Label - Set a Better Table" "Balance, Balance, Balance"
	2c. Students can investigate how nutrient-rich foods contribute to bone and teeth development, skin, hair nails, vision, energy levels, resistance to infection, and normal growth and behavior. Particularly concentrate on these functions throughout life.
	2d. Students can view pictures of individuals with nutritional deficiencies. If possible, obtain pictures after the diet has been improved.
	2e. Discuss the need for water in regulating body precesses. Give examples of various souces which contribute fluid to the diet.

TOPIC: Nutrition and the Single Adult (continued)

OBJECTIVES	SUGGESTED ACTIVITIES
	2f. Conduct a poll to determine the number of students taking vitamin/mineral supplements. Select a representative sample from the above group and obtain 3-day food logs from members of the sample. Determine if their use of supplements is really based on medical or nutritional need.
	2g. Illustrate that the use of a varied diet makes the use of supplements unnecessary for most individuals.
	2h. Discuss enrichment and fortification of foods. Design a bulletin board with pictures of food products or labels which illustrate enrichment.
	2i. Invite a resource person to discuss the relationship of a person's present nutritional status with their future health.
	2j. Prepare a chart which illustrates that the same nutrients are needed throughout life but in varying amounts.
3. Students will define a "calorie" and gain experience in calculating caloric intakes.	3a. Discuss calorie as a measurement of heat energy.
	3b. Discuss the source of calories (protein, fat, and carbohydrate) and the amount of calories dervied from each source. Emphasize that vitamins, minerals, and water supply no calories and therefore no energy.
	3c. Students can maintain a 3-day food log and calculate their own caloric intake.
	3d. Students can compile charts for each nutrient illustrating low and high calorie foods which supply that nutrient.

OBJECTIVES	SUGGESTED ACTIVITIES
	3e. Discuss various factors which influence caloric intake - e.g. age, sex, activity level, state of health, basic metabolism, etc.
	3f. Using graphs, illustrate how basic caloric needs vary throughout life.
4. Students will complete an individual nutritional profile.	4a. Discuss how nutrition is a very individual matter and tables can only offer approximate requirements.
	4b. Assist students in completing an individual nutritional profile. NOTE: Different procedures are used according to whether the individual is an adult or a teenager.
	Instructions for above activity are given on the following pages.

NUTRITION PROFILE - UNDER 18 YEARS OF AGE

I. Use the table at the end of the unit. According to the person's age and sex, locate the percentile which is closest to their present height. Based on that precentile, locate their corresponding ideal weight.

NOTE: Reference used throughout the example is a 17 year old, 100 pound, female

II. Change the ideal weight to kilograms. N.B. 2.2 lbs. = 1 kg.

2.2 lbs.) Ideal weight ——— Weight in kilograms

Example: 45.4 or 45 kg.
2.2) 100.00

III. Calculate number of calories required each day.

Step 1 - Basal metabolism = 1 cal/kg. of body weight for 1 hour

Example: 45 kg.
x 1 cal/hour
45 cal/hour
x 24 hours (in one day)
1080 calories

Step 2 - Allow 50% of the caloric intake in addition to basal metabolism to compensate for the specific dynamic action of food.

1080 calories (for basal metabolism)
x .50
540.00 calories needed for specific dynamic action of food

Step 3 - Add basal metabolism and specific dynamic action of food together.

1080 + 540 = 1620 total caloric requirement

96

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Nutrition and the Single Adult (continued)
Nutrition Profile - Under 18 years of age

IV. Calculate required amount of carbohydrate each day.

50% of Caloric intake x $\frac{1 \text{ gram}}{4 \text{ cal.}}$ = grams/day of carbohydrate

Step 1 - Example 1620
x .50
810.00 calories of carbohydrate

Step 2 - Divide the number of calories required from carbohydrate each day by 4.

$4 \overline{)810.0}$ 202.5 or 203 grams of carbohydrate are required each day

V. Calculate amount of fat required each day.

35% of caloric intake x $\frac{1 \text{ gram}}{9 \text{ cal}}$ = grams of fat required each day

Step 1 - 1620
x .35
567 calories from fat

Step 2 - Divide the number of calories required from fat by 9

$9 \overline{)567}$ 63 grams of fat are required each day

VI. Calculate amount of protein required each day

15% of caloric intake x $\frac{1 \text{ gram}}{4 \text{ cal}}$ = gram of protein required each day

Step 1 - 1620
x .15
243 calories from protein

Step 2 - $4 \overline{)243}$ 60.7 or 61 grams of protein required each day

Nutrition and the Single Adult (continued)
Nutrition Profile - Under 18 years of age

VII. Determine the Recommended Daily Allowances for other nutrients (vitamin A, vitamin C, thiamine, niacin, riboflavin, calcium, and iron) by using the RDA tables from a reference text.

VIII. Prepare a chart of personal nutritional requirements (Example given is for the reference person used throughout the exercise).

Carbohydrate: 203 grams
Fat: 63 g.
Protein: 61 g
Vitamin A: 4000 I.U
Vitamin C: 45 mg
Thiamine: 1.1 mg
Niacin: 14 mg
Riboflavin: 1.4 mg
Calcium: 1200 mg
Iron: 18 mg
Calories: 1620

HEIGHT AND WEIGHT FOR AGE - PERCENTILE STANDARDS - BOYS

Age Years	Height Percentiles					Weight Percentiles				
	10	25	50	75	90	10	25	50	75	90
	Ins	Ins	Ins	Ins	Ins	Lbs	Lbs	Lbs	Lbs	Lbs
2	32.7	33.2	33.8	34.3	34.6	24.2	25.8	27.3	28.7	30.6
3	36.0	36.6	37.2	37.6	38.1	28.9	30.4	31.7	33.5	35.5
4	39.0	39.7	40.2	40.8	41.4	30.0	33.1	34.8	35.9	37.9
5	41.7	42.4	43.0	43.6	44.3	37.3	38.8	40.6	42.8	45.4
6	44.1	44.9	45.7	46.3	47.0	41.7	43.2	45.4	48.3	51.6
7	46.3	47.2	48.1	48.9	49.9	46.1	47.8	50.9	54.7	58.6
8	48.5	49.4	50.5	51.4	52.6	50.5	52.9	57.4	61.9	66.6
9	50.6	51.7	52.8	53.8	54.8	55.1	58.6	64.4	70.1	75.2
10	52.5	53.7	54.9	56.1	57.0	60.4	64.8	71.4	78.0	84.2
11	54.3	55.4	56.7	58.2	59.1	65.7	71.2	78.9	86.4	93.5
12	56.0	57.1	58.7	60.3	64.3	71.0	77.8	86.0	94.8	102.7
13	58.1	59.3	61.2	62.6	67.2	76.9	85.3	95.7	105.8	114.6
14	60.4	62.1	64.1	65.5	67.2	88.0	98.5	111.1	119.5	128.7
15	63.0	65.0	66.9	68.3	69.8	101.6	112.6	124.3	134.5	143.3
16	65.6	67.3	68.9	70.4	71.7	112.4	122.6	133.8	146.4	157.4
17	66.5	68.2	69.8	71.2	72.4	120.4	130.1	139.8	153.9	169.3
18	67.1	68.6	70.2	71.5	72.7	127.0	134.3	142.4	158.7	173.3

Reprinted from: Hathaway, M.L. Heights and Weights of Children and Youth in the United States. Home Economics Res. Bulletin No. 2 U.S.D.A. Washington, D.C., 1957.

HEIGHT AND WEIGHT FOR AGE - PERCENTILE STANDARDS - GIRLS

Age Years	Height Percentiles					Weight Percentiles				
	10	25	50	75	90	10	25	50	75	90
	Ins	Ins	Ins	Ins	Ins	Lbs	Lbs	Lbs	Lbs	Lbs
2	31.8	32.7	33.5	34.3	34.9	21.6	23.6	25.8	27.6	29.1
3	34.9	35.8	37.0	38.0	38.7	25.6	27.3	30.6	32.4	34.4
4	37.8	38.9	40.4	41.3	42.0	29.3	31.3	35.5	37.5	40.1
5	40.5	41.6	43.3	44.3	45.0	33.1	35.9	40.3	43.4	45.9
6	43.1	44.0	45.9	47.2	47.7	37.0	40.6	45.4	49.6	51.6
7	45.4	46.2	48.5	49.8	50.3	41.4	45.2	51.1	55.8	60.0
8	47.7	48.4	51.0	52.2	52.8	46.2	50.0	58.0	61.9	70.5
9	49.8	50.7	53.5	54.6	55.2	51.1	56.0	65.7	70.5	82.5
10	51.9	53.1	55.6	56.9	58.0	56.0	62.2	74.3	81.8	93.9
11	53.7	55.7	58.1	59.7	60.9	60.8	69.4	83.8	94.6	104.7
12	55.5	59.0	61.3	62.6	63.6	70.5	80.9	96.1	106.5	115.1
13	58.3	61.0	63.9	65.1	65.9	79.4	91.5	108.9	114.9	124.8
14	60.5	62.2	65.0	66.1	67.2	85.5	98.3	116.6	121.7	133.6
15	61.8	63.2	65.6	66.5	67.7	89.1	102.7	121.0	127.0	140.7
16	62.4	63.8	65.9	66.8	68.0	91.5	106.0	123.9	131.0	144.2
17	62.6	64.1	66.1	67.0	68.3	93.0	108.5	125.7	133.8	145.9
18	62.7	64.3	66.2	67.6	68.9	93.7	110.0	126.1	135.4	146.8

Reprinted from: Hathaway, M.L. Heights and Weights of Children and Youth in the United States. Home Economics Res. Bulletin No. 2 U.S.D.A. Washington, D.C., 1957.

NUTRITION PROFILE - ADULT

N.B. Reference person used in example is a 21 year old female, 5'3" 117 pounds

I. Determine Ideal Weight:

Step 1 - For the first 5 feet of height allow:
100 lbs. for a female = _____ lbs.
106 lbs. for a male = _____ lbs.

Step 2 - Add the following:
5 lbs. per inch over 5 feet for a female
5 lbs. per inch over 5 feet for a male

_____ inches over 5 ft. x _____ lbs (either 5 or 6 depending on sex) = _____ lbs.

Example:
3 inches (over 5 ft.) x 5 lbs. (for a female) = 15 lbs.

Step 3 - To find ideal weight within a 10 pound range:

Answer from Step 1 _____ + Answer from Step 2 _____ = _____ Ideal body weight

Example: 100 = 15 = 115 lbs.

Therefore the ideal weight body weight for the reference person is within a 10 pound range or anywhere from 105 to 125 lbs. Since the reference weight is 117 lbs., we can conclude the reference person is within a normal range.

II. Change ideal weight to kilograms. N.B. 2.2 lbs = 1 kg.

Example: 2.2 lbs | Ideal weight ____ Weight in kg.

$$2.2 \overline{)1150.0} \quad 52.2 \text{ or } 52 \text{ kg.}$$

III. Determine Daily Caloric Requirement

Step 1 - Determine caloric needs based on weight and activity.

Activity Level	Overweight (cal/kg)	Ideal Weight (cal/kg)	Underweight (cal/kg)
Light	20	30	40
Moderate	25	35	45
Heavy	30	40	50

Ideal weight in kg. _____ x Activity Level _____ = _____ calories required per day

Example: 52 x 35 = 1820 calories/day

Step 2 - If under 30 years of age, add 10% to above caloric intake.

Example:
1820 cal.
x .10
182

Caloric intake 1820 cal.
10% extra for + 182
age under 30 _____
2002 calories

If over 50 years of age, subtract 10% from caloric intake.

Example: Not applicable to reference person.

If female and not pregnant, not pregnant, subtract 20% from above.

Example
2002 calories
x .20
400.40

2002 calories
- 400
1602 calories/day

IV. Calculate amount of carbohydrate required each day.

50% of caloric intake x $\frac{1 \text{ gram}}{4 \text{ cal}}$ = gram/day of carbohydrate

Step 1 - 1602
x .50
801.11 calories from carbohydrate

Step 2 - Divide the number of calories required from carbohydrate each day by 4.

$4 \overline{)801}$ 200 gram of carbohydrate each day

V. Calculate amount of fat required each day.

35% of caloric intake x $\frac{1 \text{ gram}}{9 \text{ cal}}$ = gram/day of fat

Step 1 - 1602
x .35
560.70 or 561 calories of fat

Step 2 - Divide the number of calories required from fat each day by 9.

$9 \overline{)561}$ 62 grams of fat required each day

VI. Calculate amount of protein required each day

15% of caloric intake x $\frac{1 \text{ gram}}{4 \text{ cal.}}$ = gram/day of protein

Step 1 - 1602
x .15
240.30 or 240 calories from protein

Step 2 - Divide the number of calories required from protein each day by 4.

$4 \overline{)240}$ 60 grams of protein required each day

VII. Determine the RDA's for other nutrients (vitamin A, vitamin C, thiamine, niacin, riboflavin, calcium, and iron) by using the RDA table from reference text.

VIII. Prepare chart of personal nutritional requirements (Example given is for reference person used throughout exercise)

Carbohydrate: 200 g
Fat: 62 g
Protein: 60 g
Vitamin A: 4000 I.U.
Vitamin C: 45 mg
Thiamine: 1.1 mg
Niacin: 14 mg
Riboflavin: 1.4 mg
Calcium: 800 mg
Iron: 18 mg
Calories: 1602

OBJECTIVES	SUGGESTED ACTIVITIES
5. Students will identify methods of meeting the nutritional requirements of single adults.	5a. Role-play situations in restaurants where meals are ordered which contribute to a person's nutritional requirements. 5b. Discuss ways of making food preparation and meal time more pleasant for a single person, e.g. preparing foods ahead and freezing it in small containters, making table setting and atmosphere as attractive as possible. 5c. Compile a collection of recipes suitable for the single adult. See following suggestions. FRUIT SPARKLER 1. Put an ince cube in a tall glass. 2. Fill the glass 3/4 full with your favorite fruit juice. 3. Pour gingerale or club soda to the top of the glass and stir. FROSTY MILK TREAT 3/4 c. cold skim or whole milk — ¼ t. vanilla extract OR 1 ice cube — ¼ t. cinnamon OR 1 t. sugar — ¼ t. nutmeg Put all ingredients in a blender and mix well. Pour into a tall glass. CRACKER SANDWICHES Put one of the following spreads between two crackers to make mini-sandwiches: Peanut butter Cheese spread Cream cheese

OBJECTIVES

SUGGESTED ACTIVITIES

BROILED CHEESE SANDWICHES

2 slices of bread
1 T. catsup or pickle relish
2 slices of American cheese

1. Toast both slices of bread.
2. Cover one slice of bread with one slice of cheese. Spread cheese with catsup or pickle relish. Top with other slice of cheese.
3. Place the bread and cheese under the broiler until the cheese melts slightly. Top with the second slice of bread.

CHILI CON CARNE 2 servings - 1 cup each

½ T. fat or oil
¼ lb. ground beef
½ medium onion, minced
1 c. tomatoes
1½ c. kidney beans, drained
1-1½ t. chili powder
½ t. salt
¼ green pepper, diced (optional)
½ clove of garlic, minced (optional)

1. Heat fat in a large frypan. Saute meat, onion, garlic, and green pepper until lightly browned.
2. Add remaining ingredients.
3. Cover and simmer about 25 minutes.
4. If a thicker consistency is desired, remove cover during last few minutes of cooking.

CHEESE - FRANK SANDWICHES

2 frankfurters, thinly sliced
2 slices of bread
2 slices of American cheese

OBJECTIVES

SUGGESTED ACTIVITIES

1. Arrange slices of cheese topped with frankfurter slices on the bread.
2. Place under broiler until lightly browned.

N.B. Swiss, Cheddar, or Munster cheese slices may also be used.

BEEF STEW 2 cups

1 small onion, minced
1 medium carrot, sliced
1 medium potato, diced
1 small celery stalk, minced
1 c. beef broth
Dash of salt
1 T. flour
1 T. water
2/3 c. cooked beef cubes

1. Place cut up vegetables and meat in a pan. Add broth.
2. Heat to boiling. Reduce heat. Cover and simmer about 20 mins.
3. Mix flour and water. Slowly stir into mixture to thicken stew.

TOP OF STOVE MEATLOAF 2 servings

1/3 lb. ground beef
2 T. uncooked rolled oats
1 T. onion, minced
3 T. milk
½ t. salt
Pepper, as desired
¼ c. water
½ c. tomato sauce

1. Put all ingredients except water and tomato sauce into a large bowl and mix well.
2. Shape into 2 loaves. Brown loaves on all sides in a greased frying pan over medium heat. Pour off excess fat.
3. Add water and tomato sauce. Cover and cook over low heat for 30 mins.
4. Add more water if necessary during cooking.

TOPIC:

OBJECTIVES

SUGGESTED ACTIVITIES

TOMATO-MEAT SAUCE 2 servings, ½ c. each

1 small onion, minced
1 T. fat or oil
1 c. canned tomatoes
1 c. ground beef
1 t. wocestershire sauce

1. Saute meat and onion in oil until lightly browned.
2. Stir in the remaining ingredients. Cook over low heat about 30 minutes.
3. Serve over hot cooked spaghetti, macaroni, noodles or rice.

ONE PAN MACARONI AND CHEESE 2 servings, ½ c. each

1 c. hot cooked macaroni
1/3 c. milk
½ c. cheese, cut in cubes

1. Mix drained macaroni, cheese, and milk in a saucepan.
2. Cover over low heat and stir gently unyil cheese melts.
3. Let stand a few minutes after cooking if a thicker sauce is desired.

TUNA PATTIES

1 egg
1 can (6½ oz) tuna, drained
1 T. tuna liquid
½ t. prepared mustard
¼ c. fine dry bread crumbs
Fat

1. Combine egg, tuna, tuna liquid, mustard, and half the bread crumbs. Mix.
2. Shape into 4 patties. Roll in the remaining crumbs.
3. Heat fat. Cook patties over medium heat 3-4 min. until browned on one side
4. Turn gently and cook until other side is browned.

OBJECTIVES	SUGGESTED ACTIVITIES

VEGETABLES IN CREAM SAUCE 2 servings, ½ c. each

1 T. margarine or butter
1 T. flour
¼ t. salt
½ c. milk
1 c. drained cooked or canned vegetabl
e.g. carrots, corn, potatoes, peas, green beans, or spinach

1. Melt fat in a saucepan. Stir in flour and salt. Add milk slowly, stirr until smooth.
2. Cook and stir over medium heat until mixture boils. Lower heat; cook and stir until mixture thickens.
3. Heat vegetables with sauce.

SQUASH AND TOMATOES 2 servings, 2/3 c. each

2 small zucchini or yellow summer squash, sliced
½ small onion, minced
1 c. canned tomatoes
¼ t. salt
Pepper, to taste
1 slice bread

1. Mix all ingredients except bread in a pan. Cover and boil gently about 25 mins. until squash is tender.
2. Tear bread in pieces and add to vegetables. Heat through.

COLE SLAW

1. Mix finely chopped or shredded cabbage with mayonnaise or salad dressing until moistened.
2. If desired, add raisins, pineapple chunks, chopped apple, or finely shredded carrot.

OBJECTIVES

SUGGESTED ACTIVITIES

MACARONI SALAD 2 servings, 3/4 c. each

1 small celery stalk, minced
¼ small onion, minced
3 T. mayonnaise
1 t. vinegar
1 t. sugar
½ t. prepared mustard
½ t. salt
Pepper, to taste
1 c. macaroni, cooked and drained
1 hard cooked egg, chopped

1. Mix all ingredients gently in a bowl. Chill.

POTATO SALAD 2 servings, 3/4c. each

1. Use same recipe as macaroni salad except substitute 2 medium cooked potatoes, diced, in place of macaroni.

PANCAKES 4 medium pancakes

2/3 c. enriched flour
1 t. baking powder
1 T. sugar
1 egg
½ t. salt
2 T. melted fat or oil
1/3 c. milk

1. Beat egg, salt, and milk. Stir in the fat.
2. Add egg mixture to dry ingredients. Mix well. Batter may be slightly lumpy.
3. Cook pancakes on heated, greased frying pan until top surface is covered with bubbles. Turn and brown on other side.

OBJECTIVES

SUGGESTED ACTIVITIES

RICE PUDDING 2 servings

1½ T. sugar
Dash of salt
Dash of nutmeg
¼ t. vanilla
¼ c. milk
½ c. cooked rice
2 T. raisins

1. Mix sugar, salt, and nutmeg. Add vanilla to milk. Pour over sugar mixture slowly. Stir. Add rice and raisins and mix well.
2. Pour into buttered custard cups. Bake at 325 until rice has absorbed the milk and top is lightly browned.
3. Chill. Serve with cream or milk.

TAPIOCA PUDDING 2 servings

1 c. milk
1½ T. minute tapioca
1½ T. sugar
Dash of salt
1 egg
½ t. vanilla

1. Scald milk in double boiler. Pour slowly over mixture of tapioca, sugar, and salt.
2. Return to double boiler. Cook 10 mins.
3. Beat egg yolk. Add to mixture slowly and stir constantly. Cook 3 mins.
4. Remove mixture from stove. Add vanilla. Stir. Fold in stiffly beaten egg whites.
5. Chill.

SNACK FOOD SENSE

This five class unit is designed for sixth grade students. It attempts to help them evaluate and improve their snacking habits.

by

Mary Ann Bartashunas, Wyoming Area School District

Dolores Klink, Wyoming Area School District

TOPIC: Snack Food Sense

OBJECTIVES	SUGGESTED ACTIVITIES
1. Students will define a snack.	1a. Students will consider how snacks add variety to the diet; give energy and vitality; satisfy hunger; add calories; and provide nutrients.
	1b. Students will view filmstrip "Snack Facts"
2. Students will evaluate snacks according to their nutritional contribution to the diet.	2a. Using the information from the filmstrip, students will list the reasons why "junk foods" interfere with proper nutrition.
	2b. During a twenty-four hour period, students will observe the snacking habits of others. They will compile these observations in a log.
	2c. Students will design a collage of "junk food" labels.
	2d. Students will discuss the role of foods which provide only "empty calories" and replace foods which make a significant nutritional contribution to the diet.
3. Students will identify the Basic Four Food Groups.	3a. Students will select pictures from magazines which illustrate the Basic Four Food Groups.
	3b. Students will design and construct a Basic Four Food mobile.
4. Students will develop a list of foods used as snacks which help to meet the requirements of the Basic Four Food Groups.	4a. Students will identify a snack food related to each of the Basic Four Food Groups.
	4b. Students will discuss their own snacking habits.
	4c. Students will evaluate their own snacking habits, deciding whether they are a "Junk Food Jerry" or a "Basic Four Betty."

OBJECTIVES	SUGGESTED ACTIVITIES
5. Students will identify a snack which contributes to overall good health.	5a. Students will prepare a snack such as granola, raison oatmeal cookies, fruit kabobs, etc.

5b. Raison Oatmeal Cookies — Yield: 7 dozen

Ingredients

1 c. granulated sugar	½ t. nutmeg
1 c. firmly packed brown sugar	½ t. cloves
1 c. shortening	1 t. baking soda
2 eggs	1 t. baking powder
1/3 c. molasses	1 c. evaporated milk
3 c. sifted enriched flour	3 c. quick-cooking oats
1 t. salt	2 c. raisons
1 t. cinnamon	1 c. chopped nuts, if desired

Procedure

1. Blend sugars, shortening, eggs, and molasses until light and fluffy.
2. Sift flour, salt, spices, soda, and baking powder together.
3. Add dry ingredients alternately with evaporated milk until well blended.
4. Drop by heaping spoonfuls on greased cookie sheets.
5. Bake at 350 for 15-18 minutes until light brown.
6. Cool on wire racks.

CASE STUDIES

CASE STUDY

BARBARA, BARRY, AND BREAKFAST

Barbara, who is 13 years old, has the responsibility of seeing that her eight year old brother, Barry, gets up for school, eats breakfast, and leaves for school on time everyday. Barbara's mother is at work when she gets up, and her father is asleep as he works late at night.

Barbara is about 10 pounds overweight and she would like to reduce her food intake. However, she has learned in her homemaking and health classes that "You shouldn't skip breakfast." With everything she must do in the morning, she finds it difficult to get it all accomplished. Barbara does know that she and Barry should have some vitamin C, some protein (such as milk), and enough carbohydrates and fats for energy at every breakfast. This would be adequate to satisfy them until lunch time.

Barbara doesn't like cereal, and Barry only eats the highly sweetened cereals which she knows aren't the best for him. She honestly feels her problem is without a solution.

QUESTIONS

1. What types of food could Barbara prepare without taking too much time from her busy schedule?
2. What foods, besides orange juice, could supply vitamin C?
3. What types of foods could Barbara eat if she is trying to reduce her weight?
4. Could Barbara prepare some foods the night before? Give some examples.
5. Name a variety of ways eggs can be prepared without frying.
6. What frozen and/or ready-to-eat foods might Barbara consider?
7. Name some easy to prepare foods that Barbara could serve that usually aren't considered breakfast foods?
8. Perhaps Barry could help with breakfast. Offer some suggestions.

Contributed by:
Magdalene Fronczkiewicz
Tunkhannock Area School District

CASE STUDY

A SERIOUS PROBLEM THAT NEEDS SERIOUS ATTENTION

Judy (5'10", 180 lbs) is 17 years old and a senior at Smythville Senior High School. She is very active in many school activities such as the newspaper, co-captain of the girls' basketball team, and she works during study periods in the library. Two nights a week she also works at a local store for extra spending money.

After school, Judy must hurry home to finish her homework and help her mother with dinner and the general care of the house. During her spare time, Judy dates one of her classmates.

Judy's eating habits are very irregular. In the morning, she is in a hurry and usually only has coffee and several doughnuts. For lunch, she has 2 hamburgs or several slices of pizza, potato chips, and a diet soda. Dinner is usually a very light meal with just a sandwich and soda. Each evening, Judy enjoys a snack such as a sundae or other sweet food.

Judy's mother was very concerned about her fatigued condition and generally poor eating habits so she made an appointment with the family doctor. The doctor ordered various tests, and he found that Judy was pregnant. After a complete medical and dietary history, the doctor emphasized that Judy must improve her eating habits, both for her sake and for that of the baby's.

QUESTIONS

1. Given Judy's typical eating habits, what nutritional problems might Judy have even prior to pregnancy?

2. How will these problems be aggravated by the pregnancy?

3. What special nutritional considerations affect pregnant women?

4. Besides Judy's poor nutritional status, her age also contributes to making her pregnancy a greater risk. Using resource materials, identify problems which are more likely to occur in a teenage pregnancy.

5. Does a woman's nutritional status prior to pregnancy affect the outcome of that pregnancy? Explain.

6. How are the recommended number of servings from the Basic Four Food Groups changed for a pregnant woman? A pregnant teenager?

7. Judy has always been concerned about her weight. She is particularly upset now that she knows she's pregnant. Is this a good time for her to diet? Explain.

8. In addition to her docotr, where might Judy receive reliable nutrition advice? (Consider specif community agencies and resources)

9. Judy's medical problems are likely to be complicated by the emotional problems of a teenage pregnancy. What are some of these problems? How might they be reflected in her eating habits?

10. As a friend, how might you help Judy and where might you suggest she seek additional assistance?

Contributed by:
Charlotte Filip
Hanover Area School District

CASE STUDY

OVER-WORK AND OVERWEIGHT

Mike is 5'10", 165 pounds, and a junior at Silver Springs High School. At one time, Mike was an active participant in football, basketball, and baseball. However recently he has given up his athletic interests so that he might get an after-school job.

At approximately 6:45 A.M. every day, Mike rises, showers, and dresses so he will be able to catch the school bus at 7:30 in front of his house. By the time he has lunch, Mike's famished and proceeds to eat two hamburgers, french fries, chocolate milk, and an ice cream sandwich.

At the end of school, Mike catches the bus home, quickly changes his clothes, and rushes off to work. His friend picks him up so they can start at 3:30. Mike works as a short order cook until 8:30. At the end of the working day, Mike and his friend sit down to a dinner of two cheeseburgers, a large order of french fries, a large coke, and a piece of chocolate chiffon pie.

Sometimes when he gets home, Mike will have a milkshake, ice cream, or dessert that has been leftover from supper. Otherwise, he does his homework, watches T.V., and goes to bed around midnight.

Mike's mother is becoming concerned because he appears to be gaining weight as well as developing a complexion problem. His mother has a friend who recommended that Mike begin to take vitamin A to cure his acne. His mother bought capsules containing 5000 IU of vitamin A and Mike has started to take 3 capsules each day.

QUESTIONS

1. Calculate Mike's daily caloric intake.

2. What is the recommended daily caloric intake for Mike?

3. Besides Mike's consumption of food, what other factors are contributing to his weight gain?

4. List some physical effects of overweight.

5. What social consequences are associated with being overweight?

6. How might you help Mike if you were his friend?

7. What is the relationship between vitamin A and the skin?

8. Can excessive intake of vitamin A be harmful? Explain.

9. Using reference sources, determine what factors influence the development of teenage acne.

10. What or who would be a reliable source of help for Mike's skin problem?

Contributed by:
Diane Black
Wyoming Area School District

CASE STUDY

DO YOU BELIEVE EVERYTHING YOU READ?

Joan, a slightly built, 5'2" high school junior, has always been what you might call on the "quiet side." She never cared much for making friends and only has a few of them. As far as dating is concerned, she can't be bothered and would prefer to stay at home.

As far as taking care of her appearance, Joan spends very little time on herself. She eats when and as much as she wants and can be seen "munching" almost constantly. In recent months, Joan has started to put on weight to the point where it is really becoming noticible. At her yearly school physical in December, she weighed 119 lbs., which was 15 pounds heavier than her weight at last year's examination.

When questioned about her weight gain by the school nurse, Joan explained "Last summer I was reading a ladies magazine which my mother bought at the food store. I saw a height and weight chart in an article about dieting. When I looked up my height and weight, I found out I really was underweight. It said the ideal weight for a female who is 5'2" was 117 pounds. So now I don't watch what I eat because according to the chart I should gain weight."

QUESTIONS

1. What was Joan not taking into consideration when calculating her "ideal" weight?

2. What should be included in a good height and weight chart?

3. Find a reliable height and weight chart, tell where you located it, and calculate your ideal weight.

4. Even if Joan were underweight, what was wrong with her method of gaining extra weight?

5. If you were one of Joan's friends, how might you help her - physically and mentally?

6. How do you think Joan might react to your help?

Contributed by:
Judith P. Walsh
Hanover Area School District

CASE STUDY

IS IT JUST A "PHASE"?

Christopher is four years old and the "baby" of the family. With 2 older brothers and 2 older sisters, there has been a tendency to spoil him. This is especially true since his father died when he was an infant. Now his mother finds that he can be difficult to handle and he often insists on getting his own way.

Christopher is quite active at home. He usually gets up around 7:00 A.M. and he doesn't go to bed until 9:00 or 10:00 P.M. Occasionally he takes a nap in the afternoon. Chris is 3'4" tall and weighs about 37 pounds. He is of medium build, but he does have a slightly protruding tummy.

In the morning, Christopher has cereal with milk. He really enjoys milk and drinks it frequently throughout the day. In fact many times, he seems to prefer to drink fluids rather than eat solid foods.

At lunch and dinner, Chris will eat only when he's ready. He enjoys vegetables, especially salads and potatoes; but he doesn't like meats with the exception of chicken, hot dogs, and processed lunch meats. At night, Chris snacks on lunch meat. Lately, he has also begun to enjoy eating oranges.

Christopher's family is very concerned because he has frequent colds which linger for a long time. They feel his eating habits are responsible for this, and so his mother has started to force him to eat. However, she usually has little success.

QUESTIONS

1. Locate height and weight charts to determine if Christopher's development is within normal ranges.

2. Using the Basic Four Food Groups, determine if Christopher is likely to be deficient in any nutrients.

3. Is it typical for children to go through stages regarding their food preferences?

4. Make some suggestions for dealing with a finicky eater.

5. How can you successfully introduce children to new foods?

6. Is it wise to force a child to eat? Explain.

7. Are Christopher's eating habits consistent with his other behavior. Explain how they are interrelated.

8. Christopher enjoys eating processed lunch meat. How do they compare nutritionally with other forms of meat?

9. What is the relationship between nutrition and person's resistance to infection?

10. Given Christopher's frequent and lingering colds, what suggestions might you give his mother? (Don't limit them to nutritional considerations)

Contributed by:
Rosemary Hudack
Northwest Area School District

CASE STUDY

VEGETARIANISM AND YOU

Michael is a senior at Brentwood High School. Lately he has been reading many articles which have made him concerned about the safety of foods. His reading has emphasized the dangers of increased pesticide use and has praised the benefits of the use of organic fertilizer in farming. Michael is worried that many of the nutrients which should be present in foods are missing as a result of chemical fertilizers and over-processing foods.

Recently Michael has become increasingly disturbed about the widespread malnutrition in the world. When he learned that it required 8-10 lbs. of grain to produce one pound of edible beef, he realized the inefficiency of feeding grain to cattle instead of providing the grain directly to starving people.

As a result of these concerns, Michael has decided to become a strict vegetarian relying completely on organically grown food. In this way, he feels he will guard his own health while making a firm social commitment to others.

QUESTIONS

1. What is the difference between a lacto-ovo vegetarian and a strict vegetarian?
2. Is it possible for a strict vegetarian to meet their nutritional needs without taking food supplements?
3. What special considerations must a person contend with in planninga vegetarian diet?
4. Using resource materials which list complimentary protein sources, plan one day's diet for Michael.
5. Using classroom or library resources, determine if there is a definite difference between the nutritional value of foods grown organically and those grown using chemical fertilizers.
6. Would it be feasible to grow all foods using organic fertilizer?
7. What special considerations should a person take to minimize damage from ingesting pesticides?
8. Would it be wise to avoid the use of all pesticides? Explain.
9. What effects does widespread malnutrition have on a society?
10. What modifications have been suggested for the American diet which would help alleviate world hunger?

CASE STUDY

ARE VITAMINS THE ANSWER?

Marnie is a 15-year old sophomore with poor eating habits. Because she is concerned about her weight, Marnie skips breakfast and has a salad and diet soda for lunch. At dinner, she has a serving of meat, another salad, and iced tea or a diet soda. Her snacks are limited to 3 cookies or a candy bar each day.

Marnie admits that her eating habits are far from ideal. She is concerned about nutrition and particularly as it affects her appearance. In order to compensate for her poor diet, Marnie takes three multi-vitamin capsules each day. Each capsule contains the following:

5000 IU	-	Vitamin A
50 mg	-	Vitamin C
400 IU	-	Vitamin D
1 mg	-	Thiamine
1 mg	-	Riboflavin
15 mg	-	Niacin

Marnie feels that such a program provides adequate protection against any nutritional problems.

QUESTIONS

1. Using reference tables giving the nutrient content of common foods, calculate Marnie's average intake of the Recommended Daily Allowances for protein, calcium, iron, vitamin D, vitamin A, vitamin A, vitamin C, thiamine, niacin, riboflavin, and calories (do NOT include her intake from the vitamin supplements).

2. Using references from your text, list the Recommended Daily Allowances that Marnie should be taking in for the above nutrients.

3. Considering her nutrient intake from both food and the vitamin supplements, determine if Marnie's intake of any nutrients is still deficient, List the nutrients and explain.

4. What would be the effects if these deficiencies continue over a period of time?

5. Is Marnie's intake of any nutrient (s) too high? List.

6. Is it possible for the intake of any of these nutrients to be harmful? Explain.

7. What symptoms might Marnie notice if the excessive intake of these nutrients continue?

8. Make suggestions for improving Marnie's diet without using supplements.

CASE STUDY

NUTRITION AND YOUR APPEARANCE

Jeff is a 15 year-old sophomore at a local high school. In the fall, he is active participating in football, and in the spring he plays on the basketball team. Generally Jeff tries to eat adequate amounts of food so he will have the necessary energy to keep up with his busy schedule. In the morning, Jeff's mother prepares a good breakfast of cereal, toast, and milk or eggs and bacon.

Jeff does not snack before lunch except for a piece of sugarless gum. At lunch time, Jeff takes part in a weight lifting program and does not have time to go to the cafeteria to eat the school lunch. However he does grab a soda and potato chips or a candy bar on the run.

After school, Jeffs has a candy bar before getting ready for practice. Dinner with the family consists of a well-balanced meal with meat, potatoes, a vegetable, and a glass of milk. In the evening after games, the movies, or while relaxing, Jeff will snack on pizza, french fries, chips, and several sodas.

Jeff's mother is concerned with his severe acne problem and his poor dental check-ups. Jeff believes it's just his age and the tension from his busy schedule.

QUESTIONS

1. Using the Basic Four Food Groups, analyze the adequacy of Jeff's diet.

2. If the food intake from any group is inadequate, explain the consequences if this pattern continues over a period of time.

3. Calculate Jeff's average daily caloric intake.

4. Is Jeff's caloric intake satisfactory given his activity level? Cite references to justify your answer.

5. What is the relationship between nutrition and healthy skin?

6. It has often been said that individuals with acne should avoid certain foods such as seafood, greasy fried foods, chocolate, etc. Using classroom references, determine the accuracy of the above statement.

7. Where could Jeff seek reliable help for his acne problem?

8. How do the foods you eat affect your teeth - both positively and negatively?

9. What can you do to minimize damage to your teeth after eating highly concentrated sugary foods?

Contributed by
Mary Lou Kaminski
Pittston Area School Distri

CASE STUDY

DIET DECEPTION

Cathy is 15 years old and a sophomore at Brentwood Senior High School. She is active in many extra-curricular activities and has a hectic schedule. In the morning, the bus picks Cathy up at 7:45 A.M. She must get up at 7:00 and barely has time to shower, get dressed, and do her make-up and hair before she leaves for school.

During math class around 10:30, Cathy often begins to feel tired and sometimes she gets a slight headache. But soon it is lunch time. Cathy is concerned about her weight (she's 5'3" and 116 lbs), and she feels the school lunches are too starchy so she just has french fries and a diet soda.

After school, Cathy rushes to finish her homework so she can go out and see her boyfriend at night. For dinner, Cathy has a serving of whatever meat or fish her family is eating as well as a salad and another diet soda.

At night, Cathy usually goes to a basketball game or wrestling meet with her boyfriend. Afterwards they often meet their friends for a snack. If they stop for pizza, Cathy will have two pieces and a diet soda. At other places, she is likely to have a hamburger, french fries, and a diet soda.

Cathy's mother has been expressing concern lately about her poor eating habits. Cathy has dismissed her mother's concern as just another example of her over-protectiveness.

QUESTIONS

1. Using the Basic Four Food Groups as a reference, determine the nutritional adequacy of Cathy's diet.

2. If the number of required servings in any food group is deficient, what effects might this have if the deficiency continues over a period of time?

3. Cathy is concerned about her weight. Using height and weight tables from your text or other resources, is her concern justified?

4. Using tables showing the caloric value of food, determine Cathy's daily caloric intake.

5. What is the relationship between Cathy's caloric intake and her weight? Do you detect any inconsistencies between Cathy's concern about her weight and her method of attacking the problem?

6. What recommendations might you make to Cathy to improve her diet?

7. How to you expect she might react to your suggestions?

8. How might you try to motivate her to accept your suggestions?

9. List some reasons why people fail to follow positive nutrition advice.

10. If someone were attemptong to help you improve your diet, what techniques would be likely to motivate you successfully?

CASE STUDY

FOOD AND EMOTIONS

Jackie is a 13 year old boy whose parents have been separated for four years. At the time of the separation, Jackie and his mother moved in with Jack's grandparents, who did everything possible to make the transition easier for Jackie and his mother.

Grandma was always preparing Jack's favorite foods (spaghetti, fried chicken, and special desserts), and Jackie would have seconds of everything. Grandpa enjoyed spending time with Jackie; and in the evening he often took Jackie to sporting events or a movie. On the way home, they would usually stop for a snack, especially Jackie's favorite, pecan sundae.

Jackie spent most of his leisure time at home with his family, and his only exercise was gym class twice a week at school. Jackie's mother noticed that he had started to put on a great deal of weight. He was now 5'1" and 180 pounds. She became concerned and decided it was time to do something. She didn't allow Jackie to have any desserts or between meal snacks. -His lunches were packed at home and usually consisted of lean meats, raw vegetables, and some fresh fruit. His evening snacks were stopped. After three weeks of being on the diet, his mother didn't notice any reduction in weight. In fact, Jackie had gained weight; and he now weighed 187 pounds.

What Jackie's mother didn't know was that he stopped at a local store on the way to school and puchased candy bars which he would eat during the morning at school. At lunch, he would eat the lunch his mother had packed as well as any desserts, candy, or extra food his friends didn't want from their lunches.

QUESTIONS

1. List some of the reasons why Jackie may be gaining weight.

2. Why do you think Jackie is eating so many snack foods?

3. What foods could he substitute for the candy bar and other empty calorie foods?

4. What is the relationship between Jackie's physical activity and his weight?

5. Should Jackie's mother have consulted someone else before putting him on a diet? If so, who? If no, give reasons.

6. If you were Jackie's friend, how might you help him? What suggestions can you make?

7. Describe various ways people view food and eating when they are undergoing emotional stress.

Contributed by:
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CASE STUDY

RUNAWAY APPETITE

Laura is an eighth grade student at Annville Middle School. She is busy as editor of the school newspaper and captain of the pep squad. Laura eats breakfast if she has time. It usually consists of a glass of juice and a piece of toast. She is given money to eat lunch in the school cafeteria, but she complains that the food is terrible so she skips that meal entirely. If she buys anything, it is cookies or crackers. Laura feels that if she saves her lunch money, she will be able to buy some of her own records or cosmetics. "Being independent is important to me. Besides," Laura continues, "I'm getting too fat anyway."

Laura arrives home for dinner "tired and starved." She gobbles her food and has seconds of everything. There seems to be no end to her appetite. After dinner, her snacks include potato chips, pretzels, soda, and assorted candy.

Lately her mother has become concerned. At first she felt it might just be a phase she was going through and normal for a teenager to eat so much. But lately, Laura has begun to gain alot of weight to the point where many of her clothes are becoming too tight. Whenever Laura's mother expresses her concern about the situation, Laura becomes very upset.

QUESTIONS

1. Identify the positive and negative aspects of Laura's diet.

2. If Laura continues her present eating practices, what effects are likely in terms of her complexion? Growth? Vitality? Weight?

3. What alternatives does Laura have to the school lunch program?

4. What other ways might Laura find to make money and maintain her independence?

5. What would you recommend to Laura as an alternative to skipping lunch?

6. What factors influence a person's appetite?

7. Identify current eating habits which are contributing to Laura's weight gain?

8. If Laura is eating more simply because of her busy schedule or as a result of a growth spurt, what suggestions would you make for her diet so that she can satisfy her hunger yet not provide excessive calories?

9. If Laura does not begin to control her weight now, what physical and emotional problems might she encounter in the future?

10. Although Laura admits she's too fat when she mentions her reasons for skipping lunch, why do you think she becomes so upset when her mother brings up the topic?

11. What positive suggestions might you give to Laura's mother which might improve the situation?

Contributed by:
Mary Ann Bartashunas
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CASE STUDY

WEIGHT LOSS AND WRESTLERS

Joe is 17 years old and a senior at a large consolidated high school. Joe gets up at 6:30 A.M. and sets out for school at 7:15 after a quick breakfast of tea and toast. Joe never complains about being hungry in the morning; but whether or not it's the subject, physics, he always feels tired by third period.

Joe is 5'7" and weighs 145 lbs. As a varsity wrestler, his weight is a major concern. After his light breakfast, he also limits his lunch to a piece of pizza and a half-pint of chocolate milk. Immediately following classes, Joe rushes to wrestling practice which lasts until 5:00 P.M. On the off-season, Joe holds down an after-school job at a local shoe factory.

Each morning Joe weighs himself. He is in the 145 lb. weight class. He is allowed to gain one pound during January and another additional pound in February, but he does try to maintain his weight at a constant 145 all season. If he does find himself gaining weight, Joe stops eating entirely. Although he claims he suffers no ill effects from this practice, his mother is very concerned about his frequent moodiness. After weighing in before a bout, Joe eats a hoagie, potato chips, orange drink, and something chocolate (for "quick energy," says Joe).

Prior to wrestling season in order to make weight, Joe reduces his caloric intake to 1200-1400 calories a day despite the fact that for his age and weight a normal allowance would be 3000 calories. When he does overeat Joe eats a grapefruit before going to bed as he has heard that it will burn up the fat. Although Joe diligently counts calories, he is unconcerned about what nutrients he is receiving with those calories. For example, if he eats a candy bar, he must omit other more nutritious foods in order to maintain his calorie restriction.

Joe rarely eats vegetables with the exception of an occasional salad. His fruit intake is limited to orange juice which he often drinks at the rate of 12 to 18 oz. a day. He then skips orange juice for the next few days becasue he believes it aggravates his complexion. If you question Joe about his eating habits, he does feel there are some minor problems but nothing to be really concerned about.

QUESTIONS

1. Identify the positive and negative aspects of Joe's present food habits.

2. What might be the effects if Joe continues his present eating habits?

3. Given Joe's usual food intake after weighing in, is he selecting the best foods for quick energy? Explain.

4. What foods would recommend that Joe include in a pre-game meal?

5. When Joe does drink orange juice, he drinks more than is necessary for one day (this practice in itself will probably not harm him). However he then omits orange juice from his diet for a few days. Using resource materials, find out what specific characteristic of vitamin C makes it unlikely that the excess consumed on one day will be stored by the body for future use.

6. Using resource materials, determine the accuracy of Joe's belief that eating grapefruit will burn up extra calories.

7. Many athletes fall prey to misconceptions relating to food. List a few you are familiar with.

8. Why do some people so quickly follow the advice of food faddists?

9. Design a sample menu for one day which meets Joe's nutritional and energy needs yet which also allows him to maintain his weight.

Contributed by
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CASE STUDY

"MIRACLE" NUTRITION

Bret is fourteen years old, short, and slightly built for his age. Bret desparately wants to participate in athletics like other boys his age, but he is too small. Recently he has begun to read a number of magazines on physical fitness, and he has decided to lift weights to increase his muscle development. Bret has also read advertisements urging people interested in sports to consume extra protein to build better muscles and to compensate for the extra energy expended in exercise. Therefore Bret has started to drink a protein supplement mixed with milk or orange juice three times a day. He also has started to eat more protein at meals to gain extra weight. A typical day's menu would be similar to what is listed below:

Breakfast
Bacon - 4 slices
Scrambled eggs - 2
Protein supplement with milk

Lunch
Ham and Cheese Sandwich
Milk - ½ pint

After-School Snack
Protein Supplement with Milk

Dinner
Meat - 8oz. serving
Mashed or Baked Potatoes
Salad
Milk

Snack
Potato Chips
Soda

Bret's mother has also been concerned because she feels that he has been catching too many colds. She recently visited a health food store and began to discuss the problem with one of the clerks.

The clerk recommended that Bret take 500 mg. of vitamin C every day to prevent colds. If he should still catch a cold, the dosage should be increased to 1 gram. Bret started on this regimen last week

QUESTIONS

1. What factors influence a person's height?
2. Will eating extra protein help Bret to grow faster or develop muscles? Explain.
3. What special nutrient requirements (if any) are important to athletes?
4. Using the Basic Four Food Groups as a guide, determine if Bret is lacking the required number of servings from any group.
5. Bret is interested in gaining weight. What suggestions could you give him?
6. Given his mother's concern about Bret having frequent colds, what do you think should be her firs step in solving the problem?
7. Using reference sources, present arguments pro and con concerning the effectiveness of vitamin C in treating and preventing the common cold.
8. Have any harmful effects been identified with excessive consumption of vitamin C? Explain.

EVALUATION

The Nutrition Education Development Project emphasizes the importance of evaluation in any program of curriculum development. A continual process utilizing a variety of evaluative devices is vitally necessary to determine the success or failure of learning activities and to enable curriculum development to be an on-going process.

Specific evaluation techniques have been left up to each teacher. Pre and post tests can determine the effectiveness of the learning activities in measuring the cognitive gains resulting from each unit of study. Teachers can also evaluate the daily activities as they occur. In addition to testing, the following evaluative techniques might prove useful with various units:

* Observations of current student eating patterns and nutritional problems prevalent in a particular school

* Interviews to determine particular areas of concern to the students

* Checklists to measure attitudes toward food, family food practices, the prevalence of ethnic food customs

* Surveys to assess belief in food myths, food selection in the cafeteria, and the incidence of nutritionally-related problems in a given school

Through a well-planned evaluation program, teachers can better determine the specific needs of their students, the current knowledge they have mastered, what instructional methods would be most useful, and the progress in attaining their goals. The end result of such a program will be a curriculum that is continually being improved to better meet the needs of the students.

RESOURCES

Elementary

Science Experiments You Can Eat, by Vicki Cobb
Creative Food Experiences for Children, by Mary Goodwin. Center for Science in the Public Interest
U.S. RDA Comparison Cards, by National Dairy Council (Flash cards)
The Snacking Mouse, by Polished Apple (Filmstrip and cassette)
Poppin' Swap Nutrition Card Game, by Pillsbury Company
Menu Rummy, University of Minnesota Agricultural Extension Service
Activity Fun with Foods, by American School Food Service Association
Fun with Foods Coloring Book, by American School Food Service Association
Talking Milk Apart, by National Diary Council (activity and experiment guide)
Animal Feeding Demonstrations for the Classroom, by National Dairy Council
Animals as a Tool for Teaching Nutrition, by Pa. Department of Health
Teach Nutrition with Games, by Montclair State College

Social Studies

Critical Issues in Science and Society: A World To Feed, by Center for Humanities
Nutrition and Development, by Myron Winick
Food, by Social Issues Resources Series (compilation of articles from a variety of sources)
Food: Where Nutrition, Politics and Culture Meet, by Center for Science in the Public Interest
U. S. Nutrition Policy in the Seventies, by Jean Mayer
The Belly Book, by James Trager
A Source Book on Food Practices, by National Dairy Council

Physical Education

Nutrition and Physical Fitness, by Jean Bogert
Nutrition for Athletes, by American Alliance for Health, Physical Education and Recreation

Teenage Nutrition and Physique, by Ruth Huenemann
Nutrition and Dental Disease, by American Dental Association
Food and Care for Dental Health, by American Dental Association
Diet and Dental Health, by American Dental Association
For More Vitality, by Pa. Department of Health
How Your Body Uses Food, by National Diary Council
It's How You Eat That Counts in the Nutrition Race, by National Dairy Council

Home Economics

Nutrition: Food vs. Health, by Center for the Humanities (slides and cassettes)
Look and Cook, by Butterick (filmtrip, cassette, and activity sheets)
Food and Nutrition, by Butterick (filmstrip and cassette)
Food for Life: The Basic Four, by Tupperware (filmstrip and cassette)
Nutrition: What's In It For You, by J. C. Penney (filmstrip, cassette, and activity sheets)
Snack Foods, Encore Filmstrips (filmstrip and cassette)
The Changing Food Needs of the Family, by Dosix (filmstrip and cassette)
Foods for Teens: Snacks That Count, by Dosix (filmstrip and cassette)
You Are What You Eat: Key Nutrients, by Dosix (filmstrip and cassette)
The Great Nutrition Robbery, by Westinghouse Learning Corp. (filmstrip and cassette)
Nutrition, 8th ed., by Margaret Chaney
You and Your Food, by R. B. White
Realities of Nutrition, by Ronald Deutsch
The Family Guide to Better Food and Health, by Ronald Deutsch
Nutrition, by H. Fleck
Food Becomes You, by R. Leverton
Recommended Daily Allowances, by National Academy of Sciences
Nutritional Labeling: How It Can Work for You, by National Nutrition Consortium
Fundamentals of Normal Nutrition, by C. Robinson
Can We Eat Well for Less, by National Dairy Council
Family Fare: A Guide to Good Nutrition, by U.S. Dept. of Agriculture
Food Makes the Difference: Ideas for Economy Minded Families, by U.S. Dept. of Agriculture
Nutritive Values of Food, by U. S. Dept. of Agriculture
Nutrition Labeling: Tools for Its Use, by U.S. Dept. of Agriculture
Foods What For?, by Cornell University

Food Additives

Food Additives, by Manufacturing Chemists Association
Natural Foods: Good, Bad or Different, by Cornell University (slides)
Food Facts Talk Back, by American Dietetic Association
The Effect of Soil and Fertilizers on Human and Animal Nutrition, by USDA
Fads, Myths, Quacks and Your Health, by Public Affairs Pamphlets
Down the Primrose Path with Organic Foods, School Food Service Journal (reprint)
The World of Food, by E. Medred
Food and Nutrition, by Encyclopedia Films, Inc. (film)
Meals Bingo Game, by North Dakota Cooperative Extension
Poppin' Swap Nutrition Card Game, by Pillsbury Corp.
Teach Nutrition with Games, by Ruslink, Fink and Turner
Guide to Modern Meals, by Shank, Fitch and Chapman
Chemical Feast, located at Intermediate Unit 18 (film)
Food and Your Future, by R. E. White
Food without Fads, by McWilliams and Davis
Health and Food, by Bird, Green and Plosbett
Food Pollution, by Marna and Van Allen
Modern Consumer Education Program, by Grolier Corp.
Foods in Homemaking, by Cronan and Atwood
Be Canny - What's on the Label, by J. C. Penney (chart)
The Label Is More Than Decoration, by Pillsbury Co.
Check Stand, by Washington State University (game)

Fad Diets

Eating Disorders, by Hilde Bruch
A Dozen Diets for Better or Worse, by Calif. Dietetic Association
Fad Dieting: A Resource Portfolio, by Cornell University
Realities of Nutrition, by R. Deutsch
Too Much of a Good Thing, by Marsh Films (filmstrip and cassette)
Nutrition: Food, Fads, Frauds and Facts, by Guidance Associates (filmstrips and cassettes)
Nutrition Misinformation and Food Faddism, by Nutrition Foundation
Vegetarianism in a Nutshell, by Polished Apple (filmstrip and cassette)
Good Loser, by Dietor (game)
A Girl and Her Figure, by National Dairy Council
Obesity, by Nutrition Foundation
Dr. Atkins Diet Revolution, by R. Atkins

Save Your Life Diet, by D. Reuben
Food Power: A Doctor's Guide to Commonsense Nutrition, by L. Earle Arnow
Rating the Diets: Consumer's Guide, by Theodore Berland
Let's Eat, Let's Not, Digest A, Nutrition 2, by J. C. Penney
Why, What and When, Digest C, Nutrition 2, by J. C. Penney
Nutrition: What's In It for You, Digest A, Nutrition 1, by J. C. Penney
Customize Your Diet Pack, by Penn State University